

This listing of claims will replace all prior versions, and listing of claims in the application:

Listing of claims:

Claim 1 (currently amended) An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide having cysteine proteinase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID No. 2 have at least 70%, ~~preferably at least 80%~~, sequence identity based on the ClustalW alignment method; or the complement of the nucleotide sequence, wherein the complement contains the same number of nucleotides as the nucleotide sequence, and the complement and the nucleotide sequence are 100% complementary.

Claim 2 (currently amended) The polynucleotide of Claim 1, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID No. 2 have at least 85%, ~~preferably at least 90%, optionally at least 95%~~, sequence identity based on the ClustalW alignment method.

Claim 3 (original) The polynucleotide of Claim 1, wherein the nucleotide sequence comprises the nucleotide sequence of SEQ ID No. 1.

Claim 4 (original) The polynucleotide of Claim 1, wherein the polypeptide comprises the amino acid sequence of SEQ ID No. 2.

Claim 5 (currently amended) An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide having cysteine proteinase inhibitor activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence are selected from the group consisting of SEQ ID Nos. 4, 10, 12 and 14 and have at least 80%, sequence identity based on the ClustalW alignment method; or the complement of the nucleotide sequence, wherein the complement contains the same number of nucleotides as the nucleotide sequence, and the complement and the nucleotide sequence are 100% complementary.

Claim 6 (currently amended) The polynucleotide of Claim 5, wherein the amino acid sequence of the polypeptide and the amino acid sequence selected ~~from the group consisting of~~

~~SEQ ID Nos. 4, 10, 12 and 14 have at least 85%, preferably at least 90%, optionally at least 95%, sequence identity based on the ClustalW alignment method.~~

Claim 7 (original) The polynucleotide of Claim 5, wherein the nucleotide sequence comprises the nucleotide sequence selected from the group consisting of SEQ ID Nos. 3, 9, 11 and 13.

Claim 8 (original) The polynucleotide of Claim 5, wherein the polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID Nos. 4, 10, 12 and 14.

Claim 9 (currently amended) An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide having aspartic endoproteinase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence are selected from the group consisting of SEQ ID No. 6 ~~or and 8, preferably SEQ ID No. 8,~~ have at least 75%, ~~preferably at least 80%, sequence identity based on the ClustalW alignment method, or the complement of the nucleotide sequence, wherein the complement contains the same number of nucleotides as the nucleotide sequence, and the complement and the nucleotide sequence are 100% complementary.~~

Claim 10 (currently amended) The polynucleotide of Claim 9, wherein the amino acid sequence of the polypeptide and the amino acid sequence ~~selected from SEQ ID No. 6 or 8, preferably SEQ ID No. 8,~~ have at least 85%, ~~preferably at least 90%, optionally at least 95%, sequence identity based on the ClustalW alignment method.~~

Claim 11 (currently amended) The polynucleotide of Claim 9, wherein the nucleotide sequence comprises the a nucleotide sequence selected from the group consisting of SEQ ID No. 5 or 7, ~~preferably SEQ ID No. 7.~~

Claim 12 (currently amended) The polynucleotide of Claim 9, wherein the polypeptide comprises the amino acid sequence of SEQ ID No. 6 ~~or 8, preferably SEQ ID No. 8.~~

Claim 13 (currently amended) An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide having cysteine proteinase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID No. 16 have at least 70%;

~~preferably at least 80%~~, sequence identity based on the ClustalW alignment method; or the complement of the nucleotide sequence, wherein the complement contains the same number of nucleotides as the nucleotide sequence, and the complement and the nucleotide sequence are 100% complementary.

Claim 14 (currently amended) The polynucleotide of Claim 13, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID No. 16 have at least 85%, ~~preferably at least 90%, optionally at least 95%~~, sequence identity based on the ClustalW alignment method.

Claim 15 (original) The polynucleotide of Claim 13, wherein the nucleotide sequence comprises the nucleotide sequence of SEQ ID No. 15.

Claim 16 (original) The polynucleotide of Claim 13, wherein the polypeptide comprises the amino acid sequence of SEQ ID No. 16.

Claim 17 (currently amended) A vector comprising the polynucleotide of ~~any one of Claims~~ Claim 1 to 16.

Claim 18 (currently amended) A non-native recombinant DNA construct comprising the polynucleotide of ~~any one of Claims~~ Claim 1 to 16 operably linked to a regulatory sequence.

Claim 19 (currently amended) A method for transforming a cell comprising transforming a cell with the polynucleotide of ~~any one of Claims~~ Claim 1 to 16.

Claim 20 (original) A cell comprising the non-native recombinant DNA construct of Claim 18.

Claim 21 (currently amended) The cell of Claim 20, which is selected from the group consisting of a prokaryotic cell, an eukaryotic cell or and a plant cell, preferably a coffee cell.

Claim 22 (currently amended) A transgenic plant comprising the cell of Claim 20
~~or 21.~~

Claim 23 (original) A method for modulating coffee flavour precursor levels in green coffee grains, the method comprising introducing into the coffee plant the non-native recombinant DNA construct of Claim 18.

Claim 24 (new) A vector comprising the polynucleotide of Claim 5.

Claim 25 (new) A non-native recombinant DNA construct comprising the polynucleotide of Claim 5 operably linked to a regulatory sequence.

Claim 26 (new) A method for transforming a cell comprising transforming a cell with the polynucleotide of Claim 5.

Claim 27 (new) A cell comprising the non-native recombinant DNA construct of Claim 25.

Claim 28 (new) The cell of Claim 27, which is selected from the group consisting of a prokaryotic cell, an eukaryotic cell and a plant cell.

Claim 29 (new) A transgenic plant comprising the cell of Claim 25.

Claim 30 (new) A method for modulating coffee flavour precursor levels in green coffee grains, the method comprising introducing into the coffee plant the non-native recombinant DNA construct of Claim 25.

Claim 31 (new) A vector comprising the polynucleotide of Claim 9.

Claim 32 (new) A non-native recombinant DNA construct comprising the polynucleotide of Claim 9 operably linked to a regulatory sequence.

Claim 33 (new) A method for transforming a cell comprising transforming a cell with the polynucleotide of Claim 9.

Claim 34 (new) A cell comprising the non-native recombinant DNA construct of Claim 32.

Claim 35 (new) The cell of Claim 34, which is selected from the group consisting of a prokaryotic cell, an eukaryotic cell and a plant cell.

Claim 36 (new) A transgenic plant comprising the cell of Claim 34.

Claim 37 (new) A method for modulating coffee flavour precursor levels in green coffee grains, the method comprising introducing into the coffee plant the non-native recombinant DNA construct of Claim 32.

Claim 38 (new) A vector comprising the polynucleotide of Claim 13.

Claim 39 (new) A non-native recombinant DNA construct comprising the polynucleotide of Claim 13 operably linked to a regulatory sequence.

Claim 40 (new) A method for transforming a cell comprising transforming a cell with the polynucleotide of Claim 13.

Claim 41 (new) A cell comprising the non-native recombinant DNA construct of Claim 39.

Claim 42 (new) The cell of Claim 41, which is selected from the group consisting of a prokaryotic cell, an eukaryotic cell and a plant cell.

Claim 43 (new) A transgenic plant comprising the cell of Claim 39.

Claim 44 (new) A method for modulating coffee flavour precursor levels in green coffee grains, the method comprising introducing into the coffee plant the non-native recombinant DNA construct of Claim 39.